DOIT MASTER AGREEMENT NUMBER:	B-03-006	DOIT APPROVAL DATE:	05/06/2004

VENDOR NAME: SBC SNET	FEIN: 06-054-26-46

SERVICE/PRODUCT NAME: ATM and Frame Relay Service - Frame Relay Service

SERVICE/PRODUCT DESCRIPTION:

Frame Relay Architecture

Frame relay uses high quality, digital transmission facilities and advanced packet switching technology to provide a connection oriented high-speed service. Connection oriented simply means that data transmissions (frames or segments of end user data) sent through the frame relay network always follow the same pre-defined path with the data arriving in the order it was sent. This type of service allows for the transfer of variable length frames across a wide geographical area.

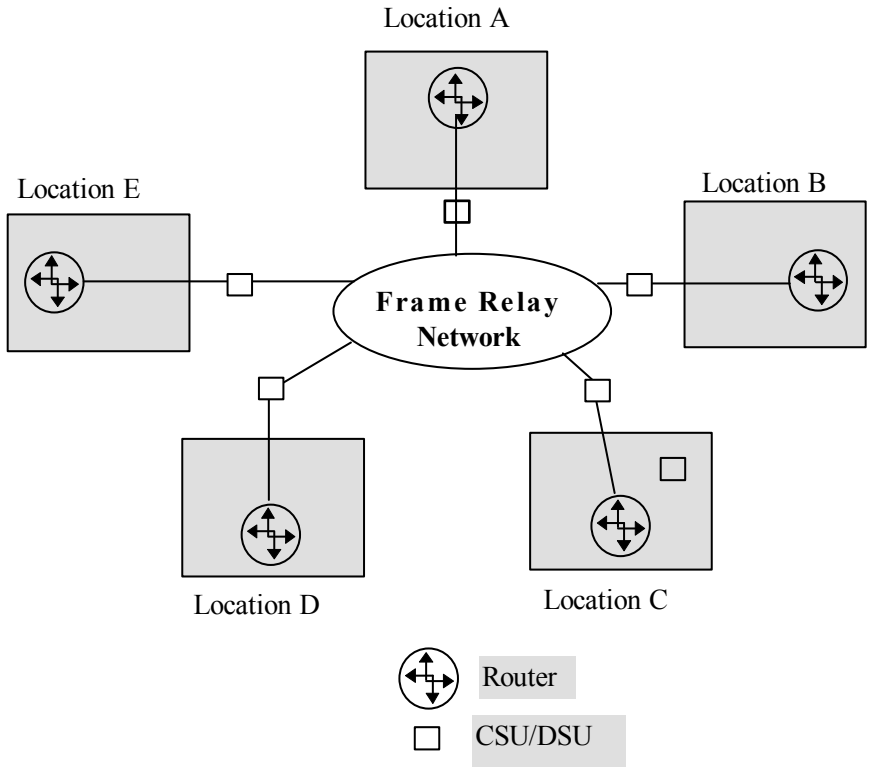
An access link to the Frame Relay Service is provided through digital access facilities between a customer's premise and a frame relay node (switch port). A virtual connection or logical link between customer-selected access links is established within the frame relay switch through a software defined logical connection (PVC). Data Link Circuit Identifiers (DLCIs) are numerical address assignments for the end-points. The combination of an access link, logical link, and DLCIs allows real time dynamic allocation of switch capacity.

With frame relay, customers can cost-effectively provide a high level of direct connectivity between remote locations. Once a single physical connection into the network is established, additional logical connections can be added at a relatively low cost. By providing a greater level of direct connectivity between locations, nearly all network users benefit. Network congestion is reduced at the primary location and network response times are reduced.

The intelligence inherent in a frame relay network results in the ability to automatically route PVCs around a network failure. Depending upon current network architecture and the amount of redundancy already built into the network, this capability can help to increase overall network availability.
Because many logical connections share the same physical interface into the frame relay network, the number of local loops needed is often reduced significantly.

Frame Relay service allows the customer to exploit the intermittent characteristic of data by oversubscribing the port connection. Oversubscription means that the customer can actually assign more PVCs and total Committed Information Rate (CIR) to a port than the port connection speed.

Frame to ATM Interworking provides a smooth and seamless migration from frame relay to ATM on a per site basis as the connectivity needs of an individual site change and grow. One or two network sites can be upgraded to ATM without affecting the rest of the network. The network provides the protocol conversion.



SBC SNET Product Offerings

Access Links (Physical circuit connection from the customer location to the serving Frame Relay Switch)

- DS0-56 kbps
- DS0-64 kbps
- 128 kbps
- 256 kbps
- 384 kbps
- 1.544 Mbps.

Permanent virtual circuits (PVCs)

- PVCs are provisioned in increments of 4 kbps with a minimum setting of 4 kbps
- The maximum allowable committed information rate (CIR) setting for any single PVC is 50% of the port speed: 56, 64, 128, 256, 384 kbps and 1.544 Mbps
- 300% oversubscription is allowed

SERVICE LEVELS:

Installation Intervals

Less than 10 circuits (includes port and access link) = 20 business days
10 or more circuits = Individual Case Basis
PVC only = 5 business days
PVC or CIR change = 3 business days

Routine Repair Intervals

Response time = Less than 1 hour
Repair Resolution time = 4 hours or less

Repair Service Level Definitions:
Repair Response is the time elapsed between when SNET receives a report of a problem or otherwise becomes aware of a problem, and the time that SNET responds to the end user or other designated contact to verify the problem.

Repair Resolution Time means the elapsed time between when the State notifies SNET of a problem, and the time that SNET restores service and such service is acceptable to the State.

SERVICE AVAILABILITY/LIMITATIONS:

SERVICE AVAILABILITY
See Service Availability spreadsheet

PROVISIONING PARAMETERS

FRAME RELAY TO FRAME RELAY				
Port Speed	CIR	Policing Graceful Discard OFF	Bc (Kbps)	Be(Kbps)
56K	28Kbps	enabled	28	28
64K	32Kbps	enabled	32	32
128K	64Kbps	enabled	64	64
256K	128Kbps	enabled	128	128
384K	192Kbps	enabled	192	192
1536K (T-1)	128Kbps	enabled	128	1408
1536K (T-1)	256Kbps	enabled	256	1280
1536K (T-1)	384Kbps	enabled	384	1152
1536K (T-1)	512Kbps	enabled	512	1024
1536K (T-1)	768Kbps	enabled	768	768

Notes:
- Policing will apply on a per PVC basis.
- The policing option will be enabled on new PVCs and any moves, adds or changes to the PVC or circuit. This includes repointing a PVC or changing the speed of the circuit.
- Policing will remain disabled (Graceful Discard ON) on PVCs in place today that are unchanged.
- Be = Line Rate – CIR
  (Burst excess will be set to the lowest line rate minus the CIR)
- 300% oversubscription is allowed.

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VENDOR NAME: SBC SNET **VENDOR FEIN:** 06-054-26-46

SERVICE NAME: ATM and Frame Relay Service - Frame Relay

A 2% credit will be issued monthly against the items ordered from this Product Schedule per the SBC SNET Master Agreement

Activity (Add, Delete, Change)	Date of Vendor Request	Date Approved By DOIT	Item	Item Code	Description of Service/Equipment	Unit	Initial Conversion: Non-Recurring Unit Cost	Post-Conversion: Non-Recurring Unit Cost	Recurring Monthly Cost
Add	10/08/03	10/10/03	1		FRAME RELAY Port and Access Link DS0	port + acc link	$0.00	$0.00	$117.00
Add	10/08/03	10/10/03	2		FRAME RELAY Port and Access Link 128k	port + acc link	$0.00	$0.00	$300.00
Add	10/08/03	10/10/03	3		FRAME RELAY Port and Access Link 256k	port + acc link	$0.00	$0.00	$360.00
Add	10/08/03	10/10/03	4		FRAME RELAY Port and Access Link 384k	port + acc link	$0.00	$0.00	$405.00
Add	10/08/03	10/10/03	5		FRAME RELAY Port and Access Link DS1	port + acc link	$0.00	$0.00	$415.00
Add	10/08/03	10/10/03	6		FRAME RELAY PVC Ordered with Port	pvc w port	$0.00	$0.00	$6.00
Add	10/08/03	10/10/03	7		FRAME RELAY PVC Ordered without Port	pvc w/o port	$0.00	$0.00	$6.00
Add	10/08/03	10/10/03	8		FRAME RELAY Change Access Link Speed	link	$0.00	$0.00	$0.00
Add	04/05/04	05/06/04	9		Woodbury Area- Frame Relay Port and Access Link 128k	port + acc link	$800.00	$800.00	$336.00
Add	04/05/04	05/06/04	10		Woodbury Area- Frame Relay PVC	pvc	$0.00	$0.00	$9.00